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8 August, 1997

Major Ralph Tolle
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Dear Major Tolle,

Enclosed is a copy of the dissertation proposal for my proposed research on the social developmental influences on the professional development of cadets at the United States Air Force Academy. The proposal defense is scheduled for Thursday, August 21, at 3:00 p.m., eastern time in the conference room of the Center for Developmental Science. I look forward to your continued feedback and guidance as I progress through this process.

Sincerely,

Py a/uf

GARY A. PACKARD, JR., Major, USAF
University of North Carolina at Chapel Hill

This is the package I sent to my committee.

Gary

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Longitudinal Study of the Social Network Influences on the Professional Military Development

of Cadets at the U.S. Air Force Academy

A proposed dissertation by

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August 21, 1997

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Abstract

The importance of moral leaders in the armed forces of any country is critical to the conduct of the military mission. This is especially true in light of recent scandals in the popular press concerning the U.S. military. The officer corps of any military provides the leadership and guidance to the forces. Although moral development has received significant attention in the research literature, leadership research is lacking in studies on the developmental trajectories of leaders. As both moral (character) and leadership issues are important to training a professional and ethical officer corps, both issues will be examined in this study. This proposed dissertation will look at the professional military developmental trajectories of cadets at the U.S. Air Force Academy. Specifically, this proposed dissertation examines moral and leadership development in the context of the social structure of the cadet environment at the U.S. Air Force Academy. The general aims are:

1. To understand, map, and identify the centrality of the social network influences of cadets using social cognitive mapping procedures (Cairns, Gariépy, & Kinderman, 1990).

2. To identify peer group influences and dynamics and their impact on the moral and leadership outcomes of cadets as measured by probations (academic, athletic, military, and honor), merit lists, separation (voluntary and involuntary), and performance averages.

3. To identify trajectories of development of these positive and negative outcomes; specifically, the influences of peer social networks on moral and leadership development.

Results from this study will both improve the understanding of leadership and moral development and provide feedback to the U.S. Air Force Academy on ways to better understand and develop cadet issues and training programs.

Longitudinal Study of the Social Network Influences on the Professional Military Development

of Cadets at the U.S. Air Force Academy

Let us have faith that right makes might, and in that faith, let us, to the end, dare to do our duty as we understand it.

- Abraham Lincoln

Duty then is the sublimest word in the English language. You should do your duty in all things.

- Robert E. Lee

Introduction and Background

Although serving on opposing sides during the civil war, General Robert E. Lee and President Abraham Lincoln both espoused a sense of duty based on principled behavior and commitment to a cause. A cadet in training at the United States Air Force Academy (USAFA) is keenly aware of the military concept of duty. It involves three core values to which the cadet is asked to dutifully commit: Integrity first - Service before self - Excellence in all we do. These values are the cornerstone values upon which the professional development of the aspiring Air Force officer rests. These values play themselves out in the cadet's behavior as both a leader and a moral agent tasked with learning how to ethically lead men and women into combat.

Strong, ethical leadership is a major force in an all-volunteer force with access to weapons of mass destruction. Groupthink, Machiavellian leadership, and overprotectionistic zeal from followers can lead to disastrous results. The military's current struggle with rape and sexual misconduct at training posts, Tailhook, and the tragic suicide of Admiral Borda are only a few examples of the dark side of professional development gone bad. Therefore, the military organizational structure must be overlaid on competent leadership and a strong moral foundation that enables the team to do its mission while protecting itself from internal destruction. Leaders

who seek their own success at the expense of others and the unit inhibit the ability of the unit to carry out its mission.

Shephard (1991) coined the term "ollieism" after Lt. Col. Oliver North to describe the behavior of overly zealous followers who believe they need to do anything possible, even to the point of breaking the law, to please their superior. This type of unethical behavior can inflict both leaders and followers. Gustafson (1997) labels self-serving individuals who frequently lie to superiors and subordinates, mismanage resources, and subvert organizational policies for their own self-interests aberrant self-promoters (ASPs). These leaders are high in self-esteem and narcissism, low in giving socially desirable responses, and exhibit a high degree of antisocial behavior. Although ASPs may have the skills and discipline to accomplish a task or series of tasks, their long term-impact on the unit's morale and readiness will likely be negative. The ability to pro-socially interact with others as one develops leadership skills is an important component of the professional development process.

A military member's personal and professional integrity is inextricably wound in the social network within which she carries out her profession. Wakin (1996) notes "professional integrity will include the role-specific obligations and responsibilities of my particular profession. I stress here the social character of professional integrity because the community is involved at every stage of professional development." (p. 3) Wakin also emphasizes that the responsibility to maintain the social climate conducive to prosocial moral development is "shared by all members of the profession." (p. 4) However, the bulk of the responsibility for creating and monitoring the prosocial moral environment lies squarely on the shoulders of the commissioned and noncommissioned officers in the unit.

Many commissioned officers are trained in the elite environment of a U.S. Service Academy. Each year, approximately 3000 cadets graduate from the three major military academies (United States Military Academy (USMA) at West point, NY; United States Naval Academy (USNA) at Annapolis, MD; and United States Air Force Academy (USAFA) at Colorado Springs, CO) and are commissioned as second lieutenants in the military. During their four year tenure at a Service Academy, the cadet is expected to obtain a Bachelor's of Science degree and learn the basic ethical, leadership, and academic skills required of a junior officer. The Cadet Wing (Air Force), Brigade (Navy), or Corps (Army) is run by cadets through a peer leadership system guided by commissioned and noncommissioned officers.

Each Service Academy has a character and leadership development program which emphasizes military values and guides cadets in the transition from civilian life to commissioned officer in the military. At the U.S. Air Force Academy, the Center for Character Development provides training to cadets in character and ethics, human relations, and honor. The Center uses experiential training courses, seminars, community service projects, guided focus sessions, and cadet/staff training to achieve eight character outcomes (Hall, 1996, see Appendix A for list of character outcomes). These new programs have received favorable feedback in their early tenure. However, most of the feedback has come through surveys of cadets (Hall). Studies linking successful outcomes to the individual development of the cadet within the current social context of the Academy environment are needed. This proposed dissertation will contribute to the analysis of these important programs. The proposed dissertation will look at how both formal and informal social networks correlate with the moral and leadership development of these potential officers (cadets).

As alluded to earlier, two components of professional development, moral development and leadership development, are key factors emphasized in the training of cadets. Integrity, selfless service, personal discipline, decisiveness, and high standards of behavior are all components of the moral and leadership development of cadets. Therefore, a review of current understandings and research in moral and leadership development is important.

Moral Development

Moral development theory has been largely dominated by three theoretical perspectives in psychology: cognitive developmental approach, individual differences/trait dispositional approach, and behavior/learning approaches (Kurtines, 1986). A closer look at the character outcomes from USAFA (see appendix A) show a close link to Kohlberg's (1969) postconventional level of moral reasoning. Therefore, this review will emphasize the cognitive developmental approach proposed by Kohlberg.

Much study on moral development has centered on Kohlberg's theory of sequential stages of moral development (Kohlberg, 1969). Kohlberg was strongly influenced by both Piaget and Baldwin in his conceptualization of his stages of development. Kohlberg draws especially from Baldwin's conceptualization of experience as not only internal but also social and reflective (Cairns, in press). Piaget's conceptualization sees developmental stages as hierarchical cognitive stages with distinct or qualitative differences in children's modes of thinking about or solving the same problem at different ages (Kohlberg).

The application of these influences to moral development led to the theoretical stages in Kohlberg's seminal dissertation in 1958. This theory proposes a developmental and sequential theory of moral development based on a study of males responding to a series of ten hypothetical

moral dilemmas. The results of this research produced the following model of the stages of

moral development:

Level I - Preconventional, moral value resides in external happenings, acts or needs rather

than in persons or standards. Egocentric. Stage 1 is obedience and punishment oriented,

Stage 2 is instrumental egoism and exchange.

Level II - Conventional, moral value resides in performing good or right roles, following the

expectancies of others. Stage 3 is good-boy approval oriented, Stage 4 is authority and rule

ordered.

Level III - Postconventional, moral value resides in conformity by the self to shared or

shareable values, rights, or duties. Stage 5 is social contract, legalistic orientation and Stage

6 is conscience or principle oriented. (Kohlberg, 1969)

According to Kohlberg (1969), these stages are universal and the cognitive developmental

structure of these stages is a result of the interaction between internal cognitive structures and the

structure of the outside world. The moral development at a service academy typically involves

the developmental transition from level II to level III. Basic training fits squarely into the

framework of level II with authority and social order being the guiding principles. A cadet in

basic training will quickly tell you that basic training is not a time to question orders or directives

from superiors. It is geared toward teamwork and "sucking it up" for the good of the unit. This

attitude of obedience without question may, in part, help explain why training violations (e.g.,

hazing, improper sexual relations, rape, etc.) can occur at training bases. However, it is

important that the military, especially one defending a free and democratic society, not operate

strictly from a law and order perspective which values blindly following orders. Such an attitude

can be argued as a major contributor to major breakdowns in ethical military behavior such as the

My Lai massacre in Vietnam. We would expect our military to be led by individuals who

conceptualize morality from a level III perspective. The eight character outcomes in Appendix A

fit nicely in level III in the hierarchy of moral reasoning.

However, alternative conceptualizations of moral development should not be overlooked.

Perhaps the two biggest distractions to Kohlberg's model have been arguments against the claim

of the universal nature of the model and the model's reliance on a justice based perspective of

moral reasoning. Gilligan and her colleagues (Murphy and Gilligan, 1980; Gilligan, 1982) have

argued against the universality of the stages, especially stages 4-6 as well as the emphasis on

justice based moral thinking. Murphy and Gilligan (1980) studied sophomores at Harvard and

noticed a regression in the moral development based on Kohlberg's coding scheme. However,

they propose this is not truly a regression but another form of postconventional reasoning which

is more relativistic and capable of analyzing shades of gray rather than following absolutist moral

judgments. Their research suggests that the stages of the Kohlberg model may not be universal,

but may have differing pathways, especially at the higher stages. Gilligan (1982) reports the

results of a study done with women who have been through an abortion decision. She concludes

women transition through similar stages but proceed through the stages with more emphasis on

care and relationship than on justice.

The primary distinction in the two conceptualizations (Kohlberg vs. Gilligan) seems to lie

in the formulation and sequence of the postconventional reasoning level. Gilligan and others (see

Puka, 1994, for a review of the care and justice debate) have questioned the universality of the

model leading to a revision and expansion of the theory. Colby, Kohlberg, Gibbs, and Lieberman

(1983) responded to this debate by enlarging the realm of postconventional reasoning into a "soft stage" which acknowledges contextual features as well as acknowledging how the salience of the event may affect an individual's reasoning at postconventional levels. For example, it may be that the volatility of the abortion issue more than the gender of the subjects in Gilligan's study resulted in the caring ethic of these participants. They conclude with the observation that the care and justice perspectives are not antithetical but are in fact "interwoven in working out resolutions to moral dilemmas." (Colby et. al., p. 125)

Based on the outcomes desired of an Academy cadet, the model used at the Service Academies tends to follow a Kohlberg based justice model. However, the methodological and theoretical distinctions between Kohlberg and Gilligan bring up an important question. Is there a difference in one's ability to reason at a certain level and one's actual behavior? One would expect that drill sergeants who abuse their authority (such as having sexual relations with new recruits, consensual or forced) can reason at a level which is capable of labeling that behavior as wrong and counter to the service's goals. Yet, their behavior may not match their ability to reason. Clarke-McClean (1996a) notes that adjudicated youth have the ability to list a wide range of acceptable ways to resolve conflict (walking away, reporting the incident to staff, talking, etc.) but more often than not will resort to physical violence to resolve the dilemma anyway. Mischel & Mischel (1976) point out that if an individual knows how to act out in a prosocial manner, "whether or not he enacts them at any given time (or chooses less virtuous courses of action) depends on specific motivational and performance considerations in the psychological situation." (p. 88) Therefore, it seems important for training programs at a service

academy to include not only training on expected behavior but also measurements of actual behavior.

The contextual nature of moral development as it affects actual behavior has been investigated in several studies. Linn (1987), in a study of Israeli soldiers during the Lebanon war, studied the interplay of actual moral decision making with hypothetical moral reasoning. She found a highly significant correlation between actual and hypothetical moral reasoning (r=.89) of conscientious objectors to the war. Although differences exist in the role the military plays in Israeli culture than in an American setting, it seems evidence for a link between behavior and reasoning may exist. Kochanska, Aksan, & Koening (1995) studied the connection between internal reasoning and compliance (behavior) with preschoolers in the U.S. They found committed compliance (full endorsement of the maternal agenda) to be correlated with internalization of the agenda and also predicted internalization in the future. This finding suggests that moral reasoning ability depends on context as much as internal structural development. For example, if a child agrees that it is right to share toys with others and has internalized this behavior, then it would follow that the child would be more likely to share in the absence of external reinforcements to do so. This is consistent with research by Lepper, Greene, and Nisbett (1973) that found that providing external reward to an internally motivated child can decrease the child's motivation to comply (overjustification effect).

One's actual behavior or the carrying out of one's duties appears to depend on a large number of factors including historical, contextual, and developmental influences. Recent work in moral development has stressed these contextual, temporal, and social influences on moral development (Kurtines, 1986; Eisenburg, Carlo, Murphy, & Van Court, 1995). Costanzo (1991) addresses both the contextual and temporal nature of development in the social and moral world

with a theory of social indexing. According to this research, social and moral cognition are comprised of two systems, one based primarily on cognitive development and the other primarily influenced by various socializing factors. Therefore, to adequately study the moral development of cadets, one must also include salient factors of the social environment of the Service Academies. Thus, the proposed dissertation will emphasize social network influences in cadet life as a major predictor of the moral and ethical behavior of cadets as measured by military performance and adherence to the cadet honor system.

Leadership Development

The literature on leadership development is neither as deep nor as controversial as the literature on moral development. Leadership research is often the result of organizational studies focused on the skills and behaviors of effective leaders. Many popular programs such as Covey's "Seven Habits" series are evidence of the desire of people in organizations to improve their leadership skills and behaviors. However, little research has been done that investigates how leadership develops early in ontogeny and the factors which aid in leadership development during one's lifespan.

Historically, leadership has been considered a function of the leader's traits and characteristics. Plato speculated on the proper education and training of leaders (Fiedler, 1967). From ancient literature until the middle of this century, most efforts at defining "the great leader" emphasized leader traits to the exclusion of follower and situation variables. For example, Stogdill's (1948) review shortly after World War II, suggested that leaders differed from followers in terms of abilities and traits such as intelligence, popularity, judgment, and sociability. Yet, Stogdill recognized that the research conducted up to that point was only part of

the picture. He notes, "It is not especially difficult to find persons who are leaders. It is quite

another matter to place these persons in different situations where they will be able to function as

leaders. It becomes clear that an adequate analysis of leadership involves not only study of

leaders but also of situations." (p. 65)

Recent research has focused more on the interactive nature of leadership as a process

involving not only the leader but also the followers and the environment (Fiedler, 1967; Hersey

& Blanchard, 1969, 1982; Evans, 1970; House and Dessler, 1974; Burns, 1978; Hughes, Ginnett,

& Curphy, 1996). At a panel discussion during a seminar on "The Impact of Leadership"

sponsored by the Center for Creative Leadership in 1991, Fiedler (Tornow, 1992) observed there

was considerable evidence to support only a handful of leadership theories based on empirical

data. Of these, theories of transformational leadership (Bass, 1985; Burns, 1978) and Fiedler's

(1967) contingency model have received significant emphasis in the literature (Clark, Clark, &

Campbell, 1992) and are both taught in the leadership course required of all cadets at the Air

Force Academy. (Note: Other leadership theories which are well researched are also taught in

the Academy's leadership course including Vroom and Yetton's (1973) decision theory and

House's (1971) Path Goal theory. However, these theories deal more with leader behavior than

with the social interactions or development of the leader so they will not be covered in detail in

this proposed dissertation.) In addition, two other theories, although not as well researched, are

highly emphasized in the leadership course at the Air Force Academy. Hersey and Blanchard's

Situational Leadership Theory (Hersey & Blanchard, 1969, 1982) and The Leader Follower

Situation Model (Hughes, Ginnett, & Curphy, 1996) both incorporate the factors of the leader,

the followers, and the environment in describing the leadership process. These four theories will now be discussed in greater detail.

Theories on transformational and charismatic leadership go beyond the strict emphasis on the leader's traits and incorporate into the model the match of the leader to the expectations and values of the follower. In Burns' (1978) theory, leadership behavior is inherently tied to follower values and expectations. Two types of leaders are proposed. Transactional leaders try to satisfy mutually beneficial needs and desires of the leader and the followers. They see the relationship as a means to arrive at a mutually beneficial end for the leader and the follower. Transformational leaders operate by appealing to follower's sense of higher purpose or greater good. Referring back to Kohlberg's stages of moral development, a transactional leader operates out of level II (Conventional, following the expectancies of others) orientation, while transformational leaders is associated with a level III (Post-conventional or principle oriented) level of moral reasoning. However, unlike Kohlberg's stages which are developmentally conceptualized as being sequential stages, the distinction between transformational and transactional leadership is not developmental in nature. These two types of leaders are seen as being uniquely different in their approach to leading and one style does not necessarily precede the other. Transformational leadership is typically associated with charismatic leaders such as Ghandi or Martin Luther King, Jr. However, charisma alone is not sufficient to describe the transformational leader. Hitler, although undeniably charismatic, would not fit in the category of transformational as his leadership was directed toward the advancement of a select group of individuals as opposed to a sense of higher purpose or greater good.

Fiedler's (1967) Contingency Theory was one of the first theories to identify and study the influence of the leadership situation on leadership effectiveness. The contingency model assumes relative stability in leader behavior and that leadership effectiveness is enhanced when the proper match is made between leadership behavior and the demands of the situation. In other words, it is important to choose the right leader for the job. Thus, the leadership development process should emphasize ways for the leader to effectively modify the situation to match his leadership style. Although there is some truth to Fiedler's contention of stable behaviors, especially in adult leaders, most leadership development theories tend to emphasize the ability of the leader to adapt to the constantly changing leadership environment. Fiedler's model is one of the most well researched models of leadership effectiveness and has been widely published in leadership training programs and classes. However, a meta-analysis of the research indicates the theory is fairly accurate in laboratory settings but is an incomplete picture of the complex nature of leadership based on field research (Peters, Hartke, & Pohlmann, 1985).

One of the most widely used contingency theory of leadership emphasizing leader flexibility is Situational Leadership Theory (SLT) (Hersey & Blanchard, 1969, 1982). Hersey and Blanchard emphasize two dimensions of leader behaviors - relationship behaviors and task behaviors. Which set of behaviors a leader emphasizes depends primarily on the follower's level of maturity in relation to the job or task at hand. For example, a novice follower with low task maturity is responded to with high task orientation and low relationship behavior (i.e., told what to do and how to do it), whereas an experienced follower with high task maturity receives low task and low relationship interactions (i.e., the task is delegated). The key contingency factor in SLT is follower maturity (Hughes, Ginnett, & Curphy, 1996). SLT, although widely used, has

received sparse and mixed research support (Vecchio, 1987; Yukl & Van Fleet, 1990). Vecchio points out that it is difficult to operationalize constructs such as follower maturity and leadership effectiveness. For example, who determines effectiveness - the organization, the leader, the follower, or some combination of the three? Vecchio's study of 304 high school teachers found support for more task behaviors but suggested that even at the highest levels of follower maturity, leadership relationship behaviors are still important. Therefore, like Fiedler's theory, SLT seems to be a partial picture of the leadership situation.

The addition of a third dimension to the current two factor taxonomy of leadership effectiveness (task and relationship behaviors) may help more fully describe the leadership dynamic.[1] It would be especially encouraging if this added dimension incorporated a developmental component. Recent research in Sweden (M. Sverke, personal communication, June 10, 1997) has suggested the two dimensions of leadership behaviors (relationship and task) be supplemented by a third behavior which involves the leader's reaction to change in the work environment. The third dimension adds an important piece to the leadership situation in that it brings in situational variables along with an acknowledgment of the changing face of leadership in the highly mobile and dynamic work environment of the 1990's. Path-Goal Theory (Evans, 1970; House & Dresser, 1974) assumes leaders not only use different styles with different followers, but also use different styles in different situations, including different situations with the same set of followers. Therefore, the leader may be more directive with his followers in a crisis situation but more delegative in a routine training situation. Leadership effectiveness and

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[1]It can be argued that the two factor conceptualization of leadership behavior is fatally flawed from the beginning because it is not possible to neatly categorize behaviors into simple dimensions such as relationship and task behaviors (Yukl & Van Fleet, 1990). However, although these dimensions may over simplify, they do provide useful models for the design and conduct of research and training.

follower satisfaction are determined by the correct match of the leadership behavior, follower

motivation, and situational demands.

Hughes, Ginnett, and Curphy (1996) propose a leadership model based entirely on the

interaction between the leader, the follower, and the situation. The model is presented as a Venn

Diagram (figure 1a) with three overlapping circles representing the leader, the follower and the

situation. Each part of the leadership dynamic plays an equal role in deciding what leadership

behaviors will be most conducive for leadership success. The leader develops increased skill and

ability through the combined influence of education and experience. Although certain natural

talents or characteristics such as physical size or family status may open the door for increased

leadership opportunities, the leader develops through a spiral of actions, observations, and

reflections. In this spiral, a leader or potential leader is involved in some activity (action),

observes the consequences of the action (observation), then reflects on these consequences before

cycling to the next action (reflection). By continuously observing and reflecting on interactions

with others, the leader spirals upward in effectiveness.

However, while this theory makes intuitive sense and includes an important

developmental component, it has not been tested empirically. It would be very difficult to

operationalize the many variables involved in the leader- follower-situation interaction. Hughes,

Ginnett, and Curphy (1996) discuss how an individual can use mentoring, modeling, monitoring

of personal progress through journals and feedback, and taking advantage of formal training

programs as tools to develop and refine individual leadership. However, there is scant research

on the antecedents and social influences which lead to or predict leadership success.

Cunningham (1992) observes that leadership is a concept worthy of our study, but that perhaps

the research conducted to date has focused too much on the content of what leaders say and do and not enough on the process and patterns behind the actions. He does not suggest eliminating studies on the content (i.e., leader behaviors and interactions with others) but seems to be suggesting more of an emphasis on the processes which lead to effective leadership behavior. In other words, what seems to be missing in the literature on leadership is genuine study on the developmental trajectories of leadership behavior, especially on the social influences on that development. Therefore, using the leader-follower-situation framework as a basis, I will now discuss a way to operationalize the developmental influences on leadership.

Need for a Developmental Approach to Leadership

As is suggested above, little research has been conducted on the developmental trajectory of leadership behavior. Edwards (1994), in one of the few studies on leadership in early development, investigated how Girl Scout troops used peer nominations, adult ratings, and elected leadership status as a measure of leadership. She found that informal leadership, but not elective leadership, to be both stable and predictable from assessed personal characteristics. It was easier to predict the informal leaders in the group by their personal characteristics than to predict formal leaders.

However, research on other developmental influences is lacking, especially in the critical transition from adolescence to young adulthood. My personal experience with leadership development at USAFA as a cadet, an instructor, a counselor, and the Chief of Leadership Development Programs suggests that many factors influence the developmental trajectory of cadets while at the Air Force Academy. A model of leadership development influences based on these experiences is presented in Figure 1b. The Venn diagram in figure 1a is the Leader-

Follower-Situation Model proposed by Hughes, Ginnett, & Curphy (1996). Although it is a

useful model to describe the interactional nature of leadership in the here and now, it does little

to explain the forces which influence leadership development. The Venn diagram in figure 1b

describes these influences. Obviously not all influences are represented by this figure. However,

the figure suggests some of the possible influences on development. These influences are at

work on all components of the leadership process (the leader, the follower, and the situation) as it

develops and the influences continually evolve over time. Therefore the model is not static, but

is a continually changing and evolving dynamic system. This is similar to the spiral of

experience (Hughes, Ginnett, & Curphy) which suggests our current actions are predicated on the

observations and reflections we carry forward from our prior actions. Obviously, not all

influences on development can be studied at once, therefore, this proposed dissertation will focus

on the social influences on the professional (leadership and moral) development of cadets.

Social Nature of Professional Development

One of the main goals of each Academy is to produce the military's leaders of the future.

In order to successfully lead, a commander must have close interpersonal relationships with the

troops he commands. This requires that leadership training be an inherently social activity. In a

course in leadership at the U.S. Air Force Academy, leadership is defined as "the process of

influencing an organized group toward accomplishing its goals." (Roach & Behling, 1984) This

definition emphasizes that leadership involves influencing a group of individuals, highlighting

the social nature of the leadership task. It is important for each cadet to have the opportunity to

practice these leadership skills first hand.

In an effort to provide ample leadership opportunities for all cadets, formal positions of leadership at the Air Force Academy rotate periodically, usually at the beginning of each semester and during summer training periods. The purpose of these rotations is to provide equitable opportunities for leadership for all cadets. Yet, in reality, there are a limited number of these formal leadership positions and not all cadets will have the opportunity (or do not take the opportunity) to occupy a formal leadership role. Therefore, leadership exists not only in the formal rank structure but also among the informal peer networks cadets keep during their four years at the Academy. Cadets enter the Academy on fairly equal footing in terms of leadership experience, therefore, how the cadet adapts to the Academy environment is likely a major influence on the developmental trajectory that cadet travels. Most cadets enter the Academy with a high level of leadership experience (92.3% finished in the top quarter of their graduating class, 21% were high school class president or vice-president, 85% earned one or more varsity sports letters, and about 25% attended Boy's/Girl's State or Nation). (USAFA Office of Institutional Research, 1995) Therefore, leadership training at the Academy starts with a group of already experienced leaders and guides them through four years of development. When a cadet who is used to being a leader finds herself in a group of 100 other leaders, new hierarchies begin to form and some of these talented individuals are relegated to follower roles. The role of follower is alien to many cadets. Most cadets adapt well to this new role by becoming effective followers within the formal command structure while some adapt by increased involvement in informal and sometimes deviant peer groups. (Deviancy at a service academy is not typically associated with illegal or antisocial activity as it is commonly defined in the literature on aggressive or antisocial behavior. (see Cairns & Cairns, 1994) Although some cadet groups do get involved in deviant

behavior such as theft or cheating rings, most deviant cadet groups are more interested in minor

unruliness or doing the minimum necessary to successfully graduate with their class.)

How an individual cadet develops while at an Academy is dependent on many factors

including incoming skill level, motivation, family history, historical timing (i.e., war or peace),

and social influences. Since most cadets enter with comparable skill levels and high motivation,

it is likely that social influences are a key factor in determining how a cadet adapts to the

Academy's training regimen. Whether a cadet hangs out within the official leadership structure

or affiliates with individuals outside of the formal military hierarchy could influence their

leadership and moral development. Researchers have shown that peers can have a large

influence on the behaviors of an individual. It is a common finding in the social network

literature that peers tend to associate with individuals who are most like them (homophily)

(Cairns & Cairns, 1994; Clarke-McClean, 1996b) and who are together a lot because of

classroom or other group assignment (propinquity) (Neckerman, 1996; Bost, Cielinski, Newell,

& Vaughn, 1994). This effect of propinquity and homophily has been shown to hold across

cultures as well (Stattin & Magnusson, 1990; Leung 1996; Chen, 1996). This finding is robust

and is consistent regardless of the methodology used to identify social influences (peer networks,

best friend nominations, etc.) (See Cairns, Gariépy, & Kinderman (1990) for a review of

differing methods of social network analysis).

Related research has been done on how peer group and social influences are interwoven

with behavioral outcomes. This research has focused on the link between individual disposition

and peer influence on negative developmental outcomes. For example, Xie, Cairns, & Cairns

(1996), studied the individual dispositional and social factors correlated with teenage pregnancy.

By clustering males and females into homogenous groups before or during early puberty, they found a higher correlation with teen pregnancy if they included both the average characteristics of one's peer group and the characteristics of the individual (see also Cairns & Cairns, 1994, for a discussion of aggressive behavior and social group affiliation).

This proposed dissertation will also address the integrated nature of behavioral outcomes as they are influenced by both the individual's characteristics and the social networks within which the individual associates. However, the outcomes will emphasize the prosocial and successful adaptation of cadets to the moral and leadership demands of a Service Academy. The analysis of both individual and social group characteristics will provide valuable information in the ability to predict outcomes for cadets as measured by merit lists, performance scores, probation status, and retention.

Aims and Hypotheses

Aim 1. Identification of peer social networks at the US Air Force Academy using different procedures (i.e., SCM, NEGOPY, etc.). *Hypotheses*:

a. Cadets will form groups based primarily on propinquity (most groups will be within the squadron with few groups extending outside the squadron) and homophily (cadets will seek networks with similar values and preferences).

b. Cadets will affiliate primarily with cadets in their class, with the strength of this affiliation declining over the four years at the Academy.

c. Networks which extend outside the squadron boundary will be comprised of cadets involved in wing wide activities (i.e., intercollegiate athletics, Wing or Group staffs, debate team, etc.).

d. Different procedures (SCM, NEGOPY) will give similar accounts of the true social network structure.

Aim 2. Improve the understanding of the relationship between formal leadership hierarchies and informal leadership structures within squadrons at the US Air Force Academy. *Hypotheses*:

a. Formal and informal leaders will often be different people. Of these, informal leaders will maintain higher stability because formal leadership positions rotate on a semester basis.

b. Informal leaders will wield equal, if not higher, perceived influence in the conduct of the squadron.

Aim 3. Measure the stability of peer networks over a one academic year period (Aug - May). *Hypotheses*:

a. Cadet peer groups will be stable over the school year and cadets who change network affiliations will be likely to join new networks with similar characteristics (similar group behaviors and characteristics as well as similar centrality of the groups and individual group members).

b. Most changes in peer groups over the school year will occur in the freshman and junior class which will have only been together since June (freshman) or August (junior). Sophomores and seniors who have been together for one full year prior to the study will show higher stability in peer networks over the school year.

Aim 4. Investigate the ability of peer group characteristics and influences to predict the development of leadership and moral behaviors which either improve or degrade an

individual's likelihood of completing a year at the academy as measured by performance averages (military, academic, and athletic), probation (conduct, aptitude, athletic, academic, honor), formal leadership position, and retention (retained, voluntary disenrollment, involuntary disenrollment). *Hypotheses*:

a. The characteristics of a cadet's peer group will be as good at predicting success or failure at the Academy as individual characteristics and measures.

b. Interviews with cadets at the end of the study will indicate a wide variety of motivations and beliefs about the adequacy of the training programs at the Air Force Academy as well as the importance of traditional military values to the conduct of their jobs as commissioned Air Force officers.

Aim 5. Provide recommendations on ways to modify, influence, and/or structure cadet peer networks to improve the likelihood of success for all qualified individuals.

Experimental Design and Methods

Participants

Participants will be cadets currently enrolled at the United States Air Force Academy. Two squadrons (about 100 cadets per squadron) will be randomly selected from a stratified list of all squadrons (40 total) at the Academy; one squadron from the top 25% of the squadrons at the academy based on end of year rankings from the year prior and one squadron from the bottom 25%. It is anticipated that the samples will be representative of the current racial and gender make-up of the Service Academies. Data from most cadets will be obtained in a group setting during a common examination period scheduled every morning during the academic year. Cadets not able to attend the common examination period will receive a survey with instructions

in their squadron via the cadet distribution (mail) system and will be asked to return the survey to the Air Force Academy Institutional Research and Assessment Division. It is anticipated that a very high return rate will be possible using this procedure.

Approval to conduct the research is being coordinated through the Air Force Academy's Institutional Research and Assessment Division. University of North Carolina IRB procedures as well as APA guidelines for the conduct of research with human subjects will also be followed. The research has been approved by the UNC Chapel Hill Academic Affairs University Review Board (request number 97-005, expires 7/1/98).

Design

The proposed research will have a longitudinal and a cross sectional component. The longitudinal component will consist of three data collection points over the academic year: beginning of the fall semester 1997, end of fall semester 1997, and end of spring semester 1998. The cross sectional component will consist of data collected on all four classes of cadets (freshman, sophomore, junior, and senior classes). This procedure will enable data to analyzed between classes as well across developmental trajectories within and between each class.

Measures

Survey Instrument

Several self-report and other-report variables will be assessed through a six page paper and pencil instrument. The survey will obtain data in the following areas (A copy of the entire measure is located at Appendix B):

1. Background measures (age at entry, prior college or military experience, prior probations, intercollegiate participation, and leadership experience).

2. Self-report of personal characteristics using the ICS-L (based on Interpersonal Competence Scale - Self (ICS-S), Cairns, Leung, Gest, Neckerman, & Cairns, 1988).

3. Peer nominations of the top three current leaders, top three future leaders, top three cadets in relation to adhering to Academy core values, and top three most respected cadets in each squadron.

4. Information on who the respondent "hangs out with" for social cognitive mapping analysis (SCM). (Cairns, Gariépy, and Kinderman, 1990)

5. Identification of the leaders in informal cadet peer groups.

6. Identification of social isolates.

7. Identification of closest friends.

<u>ICS-L</u>

Peer competence evaluations will be obtained using a variation of the Interpersonal Competence Scale (ICS-T and ICS-S) (Cairns, Leung, Gest, Neckerman, & Cairns, 1988). This measure, called the ICS-L (Leader), will be made up of ICS-T items which have been modified to include language appropriate for the cadet population. The ICS-L will be completed by cadet (peer) leaders on their subordinates. (The Squadron Commander who will be rated by the Operations Officer who is second in command.) The cadets will be rated by their supervisor at all three time points. The raters for time points one and two will be the same individual unless a cadet's immediate supervisor has changed during the semester. The squadron's chain of command will change at the beginning of the Spring semester so the raters for time point three will be different than times one and two. A copy of the ICS-L along with expected factor

loadings based on research with the ICS-T (Cairns, Leung, Gest, Neckerman, & Cairns, 1988) is located in Appendix C.

Demographic and Outcome Measures

Cadets will be asked permission to release information from their official records on demographic information, retention or disenrollment data (voluntary and involuntary), probation information, and merit list status. This information will be obtained through the Air Force Academy's Institutional Research and Assessment Division.

Interview

Interviews on cadet opinions and responses to the cadet training system and cadet leadership will be conducted at time 3. This interview will be semi-structured, based on methods used initially by Sears, Maccoby, and Levin (1957) in their research on child rearing and more recently used by Cairns and associates with the Carolina Longitudinal Study (R. B. Cairns, personal communication, July 15, 1997). This interview will supplement and enhance the data collected through paper and pencil self- and other-reports by helping in the understanding of how cadets are trained, what effect the training has on cadet development, and why this effect occurs. By having unbiased coders analyze participant responses, an objective analysis of leadership and moral behavior can be conducted. For example, and interview question from the interview schedule in Appendix D is:

> How do you feel about your own character or moral development. Where are you in relation to the core values of the Academy?

For this question, coders will be asked to rate cadet moral development using Kohlbergian stages as scalar items to aid in distinguishing the moral development level of the cadets. For example, the coding for the above question is:

4f	How do you feel about your own character or moral development? Summarize feelings

00   No opinion, no answer
01   Moral behavior is externally motivated. Emphasis on obedience, punishment, accomplishment of mission
02   Moral behavior is important in being an officer, it is expected of me, helps me fit in
03   Moral behavior is good in and of itself, it is my responsibility or duty, makes me a better person
96   Misinterpretation by respondent
97   Doesn't know
98   Unscorable
99   Not asked

Examples of the remaining interview questions are located at Appendix D. Coding for each question is written to support and supplement data obtained through the survey and ICS-L measures. Questions have been worded to prevent both too much structure (as in a multiple choice question) as well as too little structure (as in a counseling interview). In addition, questions are written to be non-threatening and allow the cadet to feel comfortable giving a true response instead of the perceived "correct" response. One difficulty in interview questions identified by Sears, Maccoby, and Levin, is obtaining unmeaningful or stereotyped responses. In an effort to provide cadets the latitude to respond openly, the questions are worded in a way that indicates a wide range in responses is socially acceptable. This can be done by wording questions similar to the following:

Some cadets feel the Honor Code is fine the way it is, some think it should be changed or updated to reflect changes in values over time. What kind of changes do you feel are needed to the cadet honor code?

The interview will be a way to collaborate findings from the survey and ICS-L measures as well give new insights into the constructs of leadership and moral development.

<u>Procedure</u>

Cadets will be administered a social network questionnaire along with the appropriate version of peer ratings of individual competence at each of the three time points. For T1, cadets will be administered the Survey and ICS-L measure in a group setting. Cadets not able to attend the group administration will be sent a survey and ICS-L (if appropriate) via the cadet distribution (mail) system and the cadets will be asked to return completed instruments to the Division of Institutional Research and Assessment at the Academy. Addressed return envelopes will be provided to the cadets. Assessments at T2 and T3 will be done either en masse (as at T1) with those not in attendance followed up via a mailed survey or the entire squadron will be sampled using either the cadet distribution system or via electronic administration over the cadet computer network.

Interviews will be conducted in individual settings during the transition from spring semester to summer schedules. This transition period occurs immediately following finals but before the spring graduation ceremony. Thus, cadets will still be in their squadrons and will be free of academic and athletic training. Some preparation for summer programs will be occurring but should not hamper data collection efforts. A minimum sample of 20 cadets is planned with ten cadets from each squadron representing all four classes will be sampled. If time permits, a larger sample will be obtained. Interviews will be conducted at the Academy in cadet dorm rooms or other convenient locations. Either the primary investigator or trained interviewers will

conduct the interviews. Each interview will be coded by two coders familiar with this style of coding (experienced with working with data from the Carolina Longitudinal Study).

Proposed Analysis

Social Network Analysis

Cadets will be placed in social networks and identified as nuclear, secondary, peripheral, or isolate using Social Cognitive Mapping procedures described in Cairns, Gariépy, and Kinderman (1990). Stability of peer groups over the semester and differences in peer group stability and centrality between classes will be analyzed. This analysis will support research aims 1, 2, and 3.

Best Friend Networks

Best friend information will be used to identify peer groups using NEGOPY (Richards & Rice, 1981, Urberg, 1997). This information will add to existing literature on SCM procedures by allowing the comparison of peer networks using SCM and peer networks using best friend nominations. The NEGOPY procedures require a high participation rate for constructing social groups (Urberg) whereas the SCM procedure does not (Cairns & Cairns, 1994). Because of the high participation rate expected in this study, a direct comparison of the two procedures should be possible. This analysis will support research hypothesis 1.d.

Instrument Reliability and Validity

Collection of data at three time points will aid in the analysis of stability of characteristics over the study. Factor analysis of the ICS-L will be conducted to compare factors of this instrument with factors obtained in research with the ICS-T and ICS-S measures. These factors will be an important part of the risk analysis done using cluster analytic procedures (described

below). Inter-rater reliability will be measured on the interview schedule at time point 3. The

time lag between survey administrations (approximately 3-4 months) will not allow for

traditional test-retest reliability measures of the survey or ICS-L. However, data collected across

all three time points will aid in the analysis of stability and change in individual and group

characteristics. In addition, cross-sectional analysis of measures between the different classes as

well as they are nested in distinct squadron hierarchies will lend itself to hierarchical linear

modeling analyses (structural equation modeling or hierarchical linear modeling). Reliability and

validity analyses will support all research aims.

Configural Analysis and Risk Assessment

Cluster analysis (person oriented) for classification of homogeneous peer clusters will be

accomplished using the SLIEPNER program (Bergman & El-Khouri, 1995). This program

allows for the analysis of clusters including the identification of outliers showing extreme

patterns and the relocation of persons to alternate clusters if doing so will reduce the error sums

of squares for the cluster solution (Mahoney, 1996). Clusters will be based primarily ICS-L

ratings averaged at time points one and two (to improve stability of the measure) to predict

outcomes of deviant behavior (involuntary disenrollment or placement on probation) or pro-

social behavior (placement on merit listings) at time point 3. ANOVA and Chi-square analyses

will be used to test whether association with a high risk cluster (i.e., low academic performance,

high aggression, low popularity) is predictive of deviant behavior and whether association with a

low risk cluster (high academic, moderate aggression, high leadership) is associated with

prosocial outcomes. Person-oriented analysis supports research aims 2 and 4.

Interview Data Analysis

Interviews will be scored by independent raters and results will be used to provide both descriptive and inferential analyses. Descriptions of cadet opinions and behaviors will be useful in providing support and insight into other analyses conducted. For example, do interview descriptions of cadet leadership development correlate positively with ratings of cadet development from superiors as measured by the ICS-L? More interesting will be analyses of relationships between cadet's described leadership and moral development as obtained via the interview and actual cadet outcomes of measures such as probations, disenrollments, and merit lists. The analysis of interview data will support all research aims.

Schedule of Research Activities

Data collection will be conducted over the 1997-1998 academic school year at the Air Force Academy. The first wave of data collection will occur in early September, about four weeks after the beginning of the fall semester. The final data collection will occur in May 1998. During the 1998 summer and fall semesters, data analysis, hypothesis testing, and dissertation writing will be completed. The final dissertation oral defense is scheduled for the spring of 1999.

Conclusion

The results of this research will fill an existing gap in the literature on how social and individual characteristics interact to influence the leadership and moral development of cadets. Although data will be gathered at one service academy (Air Force), conclusions should be generalizable to other service academy settings. The impact of these results could influence the manner in which cadet social structures are monitored, molded, and utilized at each of the service academies. By considering the social influences of these institutions, leaders in the

administration of the Academies will have another tool to use in guiding the development of

tomorrow's military leadership. The ramifications of these policies will be adaptable to many

different areas in the military from basic training to highly complex training exercises.

The study of the social influences on moral and leadership development offer an

additional way to investigate the education and training effectiveness of the U.S. Service

Academies. How the military works, fights, and plays together is a hallmark of the military

experience. The core ethical virtues of 'Duty - Honor - Country' are more than a quaint phrase or

corporation goal. They are embedded in the very soul of most soldiers. By being more

knowledgeable in the way we construct the social realities of military service, we can have a

more finely tuned, dedicated, and productive military force.

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Appendix A - Character Development Outcomes of USAFA

1. *Officers with forthright integrity who voluntarily decide the right thing to do and do it.* Such officers do the right thing in both their professional and personal lives. They do not choose the right thing by calculating what is most advantageous to themselves but by having a consistent and spontaneous inclination to do the right thing. Not only are they prompted to do what is right, they actually do it.

2. *Officers who are selfless in service to their* country, the Air Force, and their subordinates. Selfless officers know how to prioritize their loyalties so that their loyalty (in descending order) is to the moral principles reflected in the Constitution, the profession of arms, the mission, and individuals. People who serve selflessly resist the natural tendency to focus exclusively on self-serving desires; thus, they do not take advantage of situations for personal pleasure, gain, or safety at the expense of the unit or mission. They share in the dangers, hardships, and discomforts of subordinates. They commit themselves to duty and responsibility to others rather than to claims of personal privilege or advantage.

3. *Officers who are committed to excellence in the performance of their personal and professional responsibilities.* Such officers strive to do their best in everything they are capable of accomplishing. They measure their self-esteem and sense of accomplishment not by comparing their works with those of other people, but by noting their achievements, based on a realistic assessment of what they are capable of accomplishing.

4. Officers who respect the dignity of all *human beings.* Officers who respect human dignity believe in the value of individual differences of race, gender, ethnicity, and religion. Officers who respect and value other people support and encourage them to develop to their fullest potential; they do not demean or debase other people. They also accept the value that individual differences add to an organization, and they contribute to an environment in which all people can fully utilize their skills and abilities.

5. *Officers who are decisive, even when they face high risk.* Decisive officers make timely and resolute decisions. They do not let self-serving desires prevent them from making decisions that are necessary for mission accomplishment. They are not afraid to communicate their beliefs about the best way to achieve mission accomplishment to their superiors. However, decisive officers are not disloyal when their advice and recommendations are not adopted.

6. *Officers who take full responsibility for* their decisions. *These officers voluntarily give* full and honest accounts of their actions and decisions to people who are entitled to know about them. When loyalty requires them to take actions that are unpopular with their subordinates, they neither blame their superiors nor shirk responsibility for the decision.

7. *Officers with the self-discipline, stamina, and courage to do their duty well under even the most extreme and prolonged*

conditions of national defense. Officers with these traits do what is right, whether the consequences involve personal peril or potential harm to their careers. Officers with a strong sense of duty also embrace the mental toughness and discipline vested in our oath of obligation 'to protect and defend the Constitution of the United States against all enemies, foreign and domestic.' They understand that fulfillment of that oath may require great personal sacrifices. Officers who do their duty accept that their profession may require self-discipline, stamina, and courage to attain the highest level of competence.

8. *Officers who understand the importance of spiritual values and beliefs to their own character development and that of the community.* Officers with this understanding are clear in their own convictions and respect the convictions of others. They understand that their leadership role requires sensitive awareness of the importance of religion in people's lives and know that they need to accommodate and support individuals' freedom to exercise faith.

Appendix B: Survey Instrument with Cover Letter

CONSENT TO PARTICIPATE IN RESEARCH STUDY (Participant's Copy)

1. I am conducting a longitudinal study on the professional development of cadets. As former director of the Leadership Development Programs at the Counseling Center, I had many discussions with cadets about the social, institutional, and personal demands on development. I am now working on my Ph.D. in Developmental Psychology and this research focuses specifically on how these demands impact cadet leadership development.

2. Your participation in this study is voluntary and you may withdraw at any time. Your answers will not influence your standing in the cadet wing nor will your answers on these questions be disclosed to any individual not involved with data collection or coding. Your participation or non-participation will not be recorded nor will it become a part of any official record. If you consent to participate in this study, you will be asked to complete separate questionnaires at three different times over the next academic year. Each questionnaire should take about 30-50 minutes to complete. In addition, a random sample may be asked to voluntarily participate in group or individual interviews. These interviews will be conducted during the 1998 spring semester. I am also asking for your permission to access relevant personal information such as demographics (age, gender, race, etc.); cumulative and current MPA, GPA, and PEA; as well as any probations you have received and the reason for those probations. By signing this form, you are giving permission for the Institutional Research and Assessment Division (HQ USAFA/XPR) at the Academy to release this information to me.

3. You will be asked to list your name and the names of squadron members several times on the survey. All names will be kept confidential and will only be used for data coding. At no time will actual names be given to others outside this study. All publication of results, including results passed back to your squadron and the Academy, will be aggregate data so that specific individuals will **NOT** be identifiable. If you are uncomfortable answering a question, leave it blank.

4. If you have any questions, please contact me at gpackard@gibbs.oit.unc.edu or my research advisor, Dr. Robert Cairns, at rbcairns@email.unc.edu (or the phone number below). This study has been reviewed by the University of North Carolina Academic Affairs Institutional Review Board (AA-IRB). You may contact the AA-IRB if you have questions or concerns about your rights as a research participant (contact Frances A. Campbell, Chair, AA-IRB Office, CB# 4100, 300 Bynum Hall, UNC-CH, Chapel Hill NC 27599-4100, 919/966-5625).

5. The results from this study will be available during the 1998-1999 academic year. I will forward a copy of the results to your squadron's AOC. If you are interested in a personal copy of the results, please e-mail me with your Academy P.O. Box (or permanent address if you will no longer be at the Academy next year) and I will send you a copy. Thank you for your time and cooperation.

GARY A. PACKARD, JR., Major, USAF   (919-962-0333)

Under the supervision of: ROBERT B. CAIRNS, Ph.D., Research Advisor (919-962-0333)

PARTICIPANT'S COPY: Please remove this page and keep it for your records. On the following page, is an identical consent statement. Please sign the copy on the next page and leave it attached to your survey. Thank you.

CONSENT TO PARTICIPATE IN RESEARCH STUDY

1. I am conducting a longitudinal study on the professional development of cadets. As former director of the Leadership Development Programs at the Counseling Center, I had many discussions with cadets about the social, institutional, and personal demands on development. I am now working on my Ph.D. in Developmental Psychology and this research focuses specifically on how these demands impact cadet leadership development.

2. Your participation in this study is voluntary and you may withdraw at any time. Your answers will not influence your standing in the cadet wing nor will your answers on these questions be disclosed to any individual not involved with data collection or coding. Your participation or non-participation will not be recorded nor will it become a part of any official record. If you consent to participate in this study, you will be asked to complete separate questionnaires at three different times over the next academic year. Each questionnaire should take about 30-50 minutes to complete. In addition, a random sample may be asked to voluntarily participate in group or individual interviews. These interviews will be conducted during the 1998 spring semester. I am also asking for your permission to access relevant personal information such as demographics (age, gender, race, etc.); cumulative and current MPA, GPA, and PEA; as well as any probations you have received and the reason for those probations. By signing this form, you are giving permission for the Institutional Research and Assessment Division (HQ USAFA/XPR) at the Academy to release this information to me.

3. You will be asked to list your name and the names of squadron members several times on the survey. **All** names will be kept confidential and will only be used for data coding. At no time will actual names be given to others outside this study. All publication of results, including results passed back to your squadron and the Academy, will be aggregate data so that specific individuals will **NOT** be identifiable. If you are uncomfortable answering a question, leave it blank.

4. If you have any questions, please contact me at gpackard@gibbs.oit.unc.edu or my research advisor, Dr. Robert Cairns, at rbcairns@email.unc.edu (or the phone number below). This study has been reviewed by the University of North Carolina Academic Affairs Institutional Review Board (AA-IRB). You may contact the AA-IRB if you have questions or concerns about your rights as a research participant (contact Frances A. Campbell, Chair, AA-IRB Office, CB# 4100, 300 Bynum Hall, UNC-CH, Chapel Hill NC 27599-4100, 919/966-5625).

5. The results from this study will be available during the 1998-1999 academic year. I will forward a copy of the results to your squadron's AOC. If you are interested in a personal copy of the results, please e-mail me with your Academy P.O. Box (or permanent address if you will no longer be at the Academy next year) and I will send you a copy. Thank you for your time and cooperation.

GARY A. PACKARD, JR., Major, USAF   (919-962-0333)

Under the supervision of: ROBERT B. CAIRNS, Ph.D., Research Advisor (919-962-0333)

CONSENT STATEMENT: I have read the above information and the Privacy Act Statement on the following page and agree to participate in this study. I understand that any data I provide will be kept confidential and that I may elect to withdraw from the study at anytime. In addition, I give permission for HQ USAFA/XPR to release the information listed in paragraph 2.

Name _____   Date _____

Thank you again for choosing to participate in this study! Please answer the following questions as completely as you can. If you are uncomfortable answering a question for any reason, leave it blank. (NOTE: In several places you will be asked to write down first and last names of people in your squadron. This information is requested only to aid in the coding of the data. No information you write down will be given to anyone except to code the data for analysis. Your name and the names of other cadets will not be reported to anyone outside the study. **REMEMBER, YOUR RESPONSES WILL BE KEPT IN COMPLETE CONFIDENCE.)**

Name: _____ Squadron: _____

SSN: _____

Class: ___ a. 1998 b. 1999 c. 2000 d. 2001

Age at entry to Academy:
    a. 18 or younger
    b. 19
    c. 20
    d. 21 or older

Do you have prior college or enlisted experience?

a. No, I entered the summer I graduated from high school.
b. No, but I waited at least a year from high school.
c. Yes, prior college.
d. Yes, prior enlisted.
e. Yes, prior college and prior enlisted.

Have you been on any probations while at the Academy (mark all that apply)?

a. No
b. Yes, currently on Academic Probation
c. Yes, currently on Athletic Probation
d. Yes, currently on Conduct and/or Aptitude Probation
e. Yes, currently on Honor Probation
f. Yes, previously on Academic Probation
g. Yes, previously on Athletic Probation
h. Yes, previously on Conduct and/or Aptitude Probation
i. Yes, previously on Honor Probation

Do you participate in intercollegiate activities that take you out of the squadron regularly (mark all that apply)?

a. no
b. Intercollegiate athletics with full on-season status at least part of the school year(i.e., football).
c. Intercollegiate athletics with less than full on-season status at least part of the school year(i.e., club sports).
d. Non-athletic participation with full on-season status at least part of the school year (i.e., Drum and Bugle).
e. Non-athletic participation with less than full on-season status at least part of the school year (i.e., debate team).

Do you currently hold a formal leadership position at USAFA? (For the purposes of this study, a formal leadership position is defined as a position officially related to the operations of the cadet wing chain of command requiring you to write one or more performance ratings on other cadets. Do not include non-supervisory jobs, clubs, or off-base activities.)

a. yes   b. no

Position: _____

Do you hold a leadership position in an activity other than the cadet wing chain of command (clubs, chapel, off-base, etc.)?
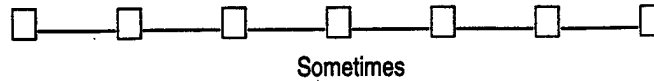
a. yes   b. no

Position(s):_____

Organization(s): _____

On the scale on the following page, please check where you would rate yourself on each line.
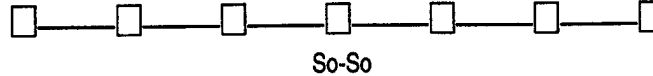
NEVER ARGUES □——□—□——□——□——□——□ ALWAYS ARGUES
Sometimes

ALWAYS IN TROUBLE □——□——□——□——□——□——□ NEVER IN TROUBLE
Sometimes

ALWAYS SMILES □——□——□——□——□——□——□ NEVER SMILES
Sometimes

WELL RESPECTED □——□——□——□——□——□——□ NOT RESPECTED
So-So
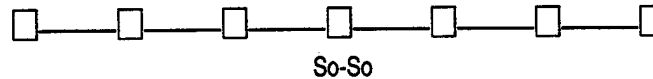
A LEADER □——□——□——□——□——□——□ NOT A LEADER
So-So
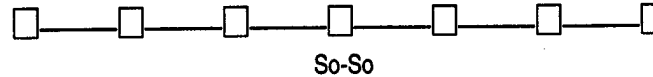
NOT ATHLETIC □——□——□——□——□——□——□ ATHLETIC
So-So
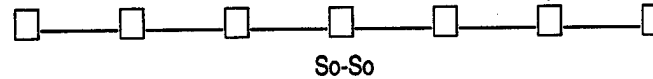
LOOKS GOOD IN □——□——□——□——□——□——□ DOESN'T LOOK
UNIFORM   So-So   GOOD IN UNIFORM
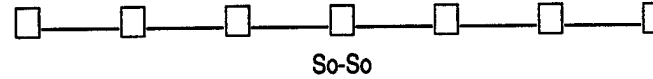
VERY GOOD IN □——□——□——□——□——□——□ NOT VERY GOOD IN
FUZZY STUDIES   So-So   FUZZY STUDIES

HOSTILE □——□——□——□——□——□——□ NOT HOSTILE
Sometimes
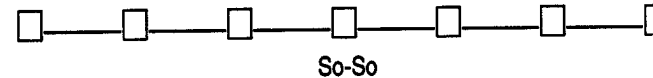
VERY POPULAR □——□——□——□——□——□——□ NOT POPULAR
So-So

MANY FRIENDS □——□——□——□——□——□——□ NO FRIENDS
Some Friends

DISLIKES POLITICS _ □——□——□——□——□——□——□ LIKES POLITICS
Neutral
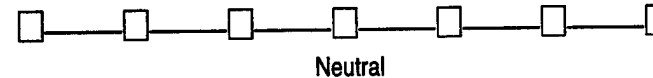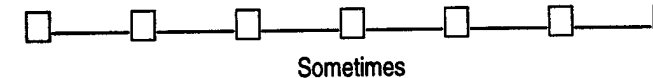
NEVER YELLS □——□——□——□——□——□——□ ALWAYS YELLS
Sometimes

WINS A LOT □——□——□——□——□——□——□ NEVER WINS
Sometimes
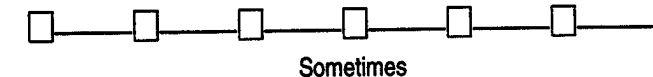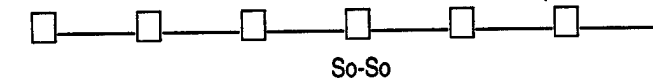
NOT VERY GOOD IN □——□——□——□——□——□——□ VERY GOOD IN
ENGINEERING   So-So   ENGINEERING

ALWAYS FRIENDLY □——□——□——□——□——□——□ NEVER FRIENDLY
Sometimes
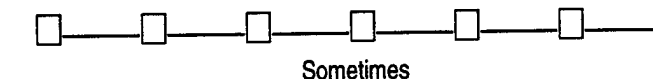
For the questions on this page, you may use a name once, more than once, or not at all.

Please list three people (first and last names) whom you consider to be the best leaders in your squadron. (They do not have to hold a formal leadership position as described on pg. 2 in order to be considered leaders.)

1. _____

2. _____

3. _____

Please list three people (first and last names) in your squadron whom you think will be the best leaders after graduation.

1. _____

2. _____

3. _____

Please list three people (first and last names) in your squadron whom you think best exemplify the core values of USAFA (Integrity - Selflessness - Excellence).

1. _____

2. _____

3. _____

Please list three people (first and last names) in your squadron whom you think are the most respected.

1. _____

2. _____

3. _____

Often in a squadron, there are groups of people who hang out together. Please use the boxes below to write the names of people who hang out together (don't forget to include yourself). List as many groups as you can identify. You do not have to fill all the boxes, write down as much as you want. If you run out of boxes, use the back. If a person is not in your squadron, please identify their squadron (if you know it). **REMEMBER, YOUR ANSWERS WILL BE KEPT COMPLETELY CONFIDENTIAL.**

example: George Washington Thomas Jefferson Betsy Ross Ben Franklin - sqd 41		

If you have a group or groups of friends you typically hang out with, who, if anyone, is/are the leader(s)?

Some people hang out with big groups, some people hang out with only a few people, and others don't hang out with a particular group. Are there any individuals in your squadron (including yourself) who don't hang out with a particular group?

a. yes   b. no

If yes, who in your squadron does not hang out with a particular group?

Please list the individual(s) whom you consider to be your closest friend(s) at the Academy.

If you are NOT an Element Leader, Flight Commander, Adjutant,

Operations Officer, or Squadron Commander, this is the end of the

survey. Thanks for your participation and the use of your

valuable time. **Element Leaders, Flight Commanders, Adjutants,**

Operations Officers, and Squadron Commanders please proceed to

Part II.

Appendix C: ICS-L Instrument (Survey Part 2)

PART II - Interpersonal Competence Scale - Leaders.

Please complete the attached rating scales for each individual in your chain of command. The people you should rate are listed below. Attached are 15 rating forms, use as many as you need and leave any unused forms blank. We have made every attempt to account for every person in the squadron. However, feel free to fill out additional rating form(s) for any individual(s)we may have overlooked. Your time is valuable, so every effort has been made to keep the rating forms short and meaningful. *Remember: These forms will __NOT__ become a part of anyone's record and will not be released to anyone outside of the researchers conducting the study. Please be honest and candid with your ratings.* Your part in this study is a key component of the project and your help is truly appreciated. Thank you.

Element Leaders Rate:

Element NCO
Element Clerk
All Third & fourth Class cadets in your element

Flight Commanders Rate:

Your Element Leaders
Unranked First & Second Class cadets in your flight

Adjutants Rate:

Information Management NCO
Support NCO
UPAR NCO
All other First & Second Class cadets who report directly to you

---

Operations Officers Rate:

Squadron Commander
Operations NCO
Athletic Officer and NCO
Training Officer and NCO
Academic Officer and NCO
All other First & Second Class cadets who report directly to you

---

Squadron Commanders Rate:

Operations Officer
Flight Commanders
Stan. Eval. Officer and NCO
Honor Officers and NCOs
Human Relations Officer and NCO
All other First & Second Class cadets who report directly to you

Name of Ratee: _____

NEVER ARGUES	□——□——□——□——□——□——□ Sometimes	ALWAYS ARGUES
ALWAYS IN TROUBLE	□——□——□——□——□——□——□ Sometimes	NEVER IN TROUBLE
ALWAYS SMILES	□——□——□——□——□——□——□ Sometimes	NEVER SMILES
WELL RESPECTED	□——□——□——□——□——□——□ So-So	NOT RESPECTED
A LEADER	□——□——□——□——□——□——□ So-So	NOT A LEADER
NOT ATHLETIC	□——□——□——□——□——□——□ So-So	ATHLETIC
LOOKS GOOD IN UNIFORM	□——□——□——□——□——□——□ So-So	DOESN'T LOOK GOOD IN UNIFORM
VERY GOOD IN FUZZY STUDIES	□——□——□——□——□——□——□ So-So	NOT VERY GOOD IN FUZZY STUDIES
HOSTILE	□——□——□——□——□——□——□ Sometimes	NOT HOSTILE
VERY POPULAR	□——□——□——□——□——□——□ So-So	NOT POPULAR
MANY FRIENDS	□——□——□——□——□——□——□ Some Friends	NO FRIENDS
DISLIKES POLITICS	□——□——□——□——□——□——□ Neutral	LIKES POLITICS
NEVER YELLS	□——□——□——□——□——□——□ Sometimes	ALWAYS YELLS
WINS A LOT	□——□——□——□——□——□——□ Sometimes	NEVER WINS
NOT VERY GOOD IN ENGINEERING	□——□——□——□——□——□——□ So-So	VERY GOOD IN ENGINEERING
ALWAYS FRIENDLY	□——□——□——□——□——□——□ Sometimes	NEVER FRIENDLY

The ICS-L is a modification of the ICS-T used with the Carolina Longitudinal Research Project. The Language has been modified to make it appropriate for a college age audience at a Military Academy. Based on research done with the ICS-T (Cairns, Leung, Gest, Neckerman, & Cairns), it is anticipated that the ICS-L will contain similar factors. These factors are hypothesized to be:

Aggression

Argues
Trouble
Yells
Hostile

Popularity

Popular
Respected
Many friends

Academic Competence

Very good in engineering
Very good in fuzzy studies

Affiliation

Smiles
Friendly

Olympian

Athletic
Looks good in uniform
Wins

Not Used

Likes politics
Leader

Appendix D: Sample Interview Schedule with Coding Guide

Time Point 3 Interview - USAFA

Introduction: I greatly appreciate your help in this interview. Before we begin, I should add this is entirely confidential. The tape will go back with me to Chapel Hill and no one at the Academy will have access to your answers. The only identification on the tape will be a code number. I will not ask you for specific names on the tape. Also, as with the surveys, you don't have to answer any question if you don't want to, and if you would like to stop the interview at any point, please let me know. Before we begin, is there anything you would like to ask me? OK, now I will turn on the tape and identify it with a code number. I will then ask you if it is OK to tape this interview. Then we will begin the interview.

(TURN ON TAPE AND STATE CODE NUMBER.)

As we discussed, this interview is confidential and this tape will be used for the purposes of data coding. Is it OK with you to tape record this interview?

1. The first questions deal with your friendships and peers at USAFA. One of the things we asked you to identify on the surveys over the past year were your peer networks and friends. I would like to know more about your friends. What makes a friend a good friend?

> Do you have many good friends such as you described at the Academy?

> Tell me about how your friends and peers influenced your professional development, especially your military development.

2. Now I would like to know a little about some of your formal leadership experiences. I would like you to tell me about a leadership position or job which you felt had a specific impact on your professional development. What job or position do you think has been most helpful in your professional development?

> Tell me a little about how that job or position. What were your primary duties or tasks?
> Did you like the job? Why or why not?

> How did you feel about the people you worked with in your job?

> How did the job benefit you professionally?

3. Having been a cadet, I know how stressful it can be sometimes living and working with people in your squadron 24 hours a day. Sometimes these living arrangements lead to conflict. Tell me about one of the times over the past year that you experienced a conflict with someone in the squadron.

> How did it end?

Have you had other conflicts with this person?

How did you feel about the conflict after it was over?

How do you feel about it now?

How do you think the other person feels about it now?

How did/does the conflict affect your ability to work with the other person or do your job?

Was the person you had the conflict with male or female? How would you have handled it differently if the person was (Opposite of stated gender)? How?

How did the conflict influence your professional or character development?

4. Next I would like to know a little about your opinions of the Honor Code and character development.

Some cadets feel the Honor Code is fine the way it is, some think it should be changed or updated to reflect changes in values over time. What kind of changes do you feel are needed to the cadet honor code?

A lot of emphasis is place on moral issues such as integrity, honesty, character. etc. Tell me about your opinion of the relationship between moral development and leadership development.

If someone is accused of a violation of the cadet honor code, describe the type of treatment you think they will receive under the honor system.

As you probably know, the Air Force's core values are adopted directly from the Academy's core values of integrity first, service before self, and excellence in all we do. As a second lieutenant, you will be asked to uphold these standards as well as make sure the people in your unit abide by them as well. How important are these values to the ability of a unit to accomplish its mission?

Why is it important to have moral leaders in the military?

How do you feel about your own character or moral development. Where are you in relation to the core values of the Academy?

5. The last area I would like to discuss with you is leadership.

Some cadets feel the military training system is fine the way it is, some think it should be changed or updated to reflect more cadet input or more responsibility. What kind of changes do you feel are needed to the training system?

While a cadet, you have been exposed to many leadership styles and traits. Pick one cadet leader in your squadron whom you feel is the best example of a good leader and explain what makes him or her such a good leader.

How do you feel about your own leadership development. What do you think about yourself as a leader?

The training system at the Academy is often a topic of much discussion in the cadet wing. As I am sure you know, the mission of the Air Force Academy is to train and develop the air and space leaders of tomorrow. If you were given an opportunity to provide performance feedback to the training system in relation to how well it is meeting its objectives, what would you say?

Thank you very much for your time, I know how valuable it is. Is there anything you would like to ask me? Have a great day and best wishes on your career.

Coding for Time Point 3 Interview - USAFA

(Below are a few of the sample coding guides for questions on the interview.)

In all cases, unless otherwise specified, a score value of 98 = unscorable/not applicable OR the subject doesn't know, and 99 = not asked by the interviewer.

Code Number from tape: _____

1a. Friendship characteristics:

00	no friend
01	none mentioned
02	list all characteristics below
96	Misinterpretation by respondent
97	Doesn't know
98	unscorable
99	not asked

Characteristics: _____

_____

_____

_____

_____

_____

_____

1e.   How did/do your friends and peers influence your professional development - leadership skills (following rules and regulations, organization)

00	fail to answer, cannot think of characteristic, no friend
01	greatly helped in development of leadership skills
02	moderately helped in development of leadership skills
03	did not provide much help, but not a hindrance
04	greatly hindered in development of leadership skills
05	moderately hindered in development of leadership skills
06	demanded more help from me than I got from them
96	Misinterpretation by respondent
97	Doesn't know
98	unscorable
99	not asked

1f.   How did/do your friends and peers influence your professional development - people skills (empathy, listening, understanding others)

    00   fail to answer, cannot think of characteristic, no friend
    01   greatly helped in development of people skills
    02   moderately helped in development of people skills
    03   did not provide much help, but not a hindrance
    04   greatly hindered in development of people skills
    05   moderately hindered in development of people skills
    06   demanded more help from me than I got from them
    96   Misinterpretation by respondent
    97   Doesn't know
    98   unscorable
    99   not asked

1g.   How did/do your friends and peers influence your professional development - character (doing the right thing, support when making tough decisions, understanding honor)

    00   fail to answer, cannot think of characteristic, no friend
    01   greatly helped in development of character
    02   moderately helped in development of character
    03   did not provide much help, but not a hindrance
    04   moderately hindered in development of character
    05   greatly hindered in development of character
    06   demanded more help from me than I got from them
    96   Misinterpretation by respondent
    97   Doesn't know
    98   unscorable
    99   not asked

3i   How did conflict impact ability to work with other individual(s)?

    00   No conflict
    01   Greatly hampered or reduced ability to work with other individual(s)
    02   Slightly or temporarily hampered or reduced ability to work with other individual(s)
    03   Now influence on ability to work with other individual(s)
    04   Slightly improved ability to work with other individual(s)
    05   Greatly improved ability to work with other individual(s)
    96   Misinterpretation by respondent
    97   Doesn't know
    98   Unscorable
    99   Not asked

31   How did conflict influence professional development (changes in people skills, conflict management skill, etc.)?

        00   No conflict
        01   Greatly hampered professional development
        02   Slightly or temporally hampered professional development
        03   Now influence on professional development
        04   Slightly improved professional development
        05   Greatly improved professional development
        96   Misinterpretation by respondent
        97   Doesn't know
        98   Unscorable
        99   Not asked

4b   What is the relationship between moral development and leadership development?
        Summarize relationship _____

        _____

Score relationship:

        00   No relationship
        01   Small or minimal relationship
        02   Some relationship but not critical or significant
        03   Moderate relationship
        04   High relationship
        05   Very high or critical relationship
        96   Misinterpretation by respondent
        97   Doesn't know
        98   Unscorable
        99   Not asked

4f   How do you feel about your own character or moral development?
        Summarize feelings _____

        _____

        00   No opinion, no answer
        01   Moral behavior is externally motivated. Emphasis on obedience, punishment, accomplishment of mission
        02   Moral behavior is important in being an officer, it is expected of me, helps me fit in
        03   Moral behavior is good in and of itself, it is my responsibility or duty, makes me a better person
        96   Misinterpretation by respondent

97   Doesn't know
98   Unscorable
99   Not asked

5e   How do you feel about your own leadership development?

Summarize traits given _____

_____

_____

Rate individual's traits - people skills (good communicator, understands others)

00   No leader picked, no answer
01   No discussion of people skills
02   People skills are a very important part of my success
03   People skills are a somewhat important part of my success
04   People skills are of minor importance to my success
05   People skills are an unimportant part of my success
96   Misinterpretation by respondent
97   Doesn't know
98   Unscorable
99   Not asked

5f   Traits of individual's leadership - rate traits - task orientation behavior (setting organizational goals, getting the job done, doing the mission)

00   No leader picked, no answer
01   No discussion of task orientation behaviors
02   Task orientation behaviors are a very important part of my success
03   Task orientation behaviors are a somewhat important part of my success
04   Task orientation behaviors are of minor importance to my success
05   Task orientation behaviors are an unimportant part of my success
96   Misinterpretation by respondent
97   Doesn't know
98   Unscorable
99   Not asked

5g   Traits of individual's leadership - rate traits - transformational leadership behavior (communicates a clear vision, charismatic, in tune with followers)

00   No leader picked, no answer
01   No discussion of transformational leadership behaviors
02   Transformational leadership behaviors are a very important part of my success

03	Transformational leadership behaviors are a somewhat important part of my success
04	Transformational leadership behaviors are of minor importance to my success
05	Transformational leadership behaviors are an unimportant part of my success
96	Misinterpretation by respondent
97	Doesn't know
98	Unscorable
99	Not asked

Figure Caption

<u>Figure 1</u>: The Leader-Follower-Situation Model and its application to leadership development
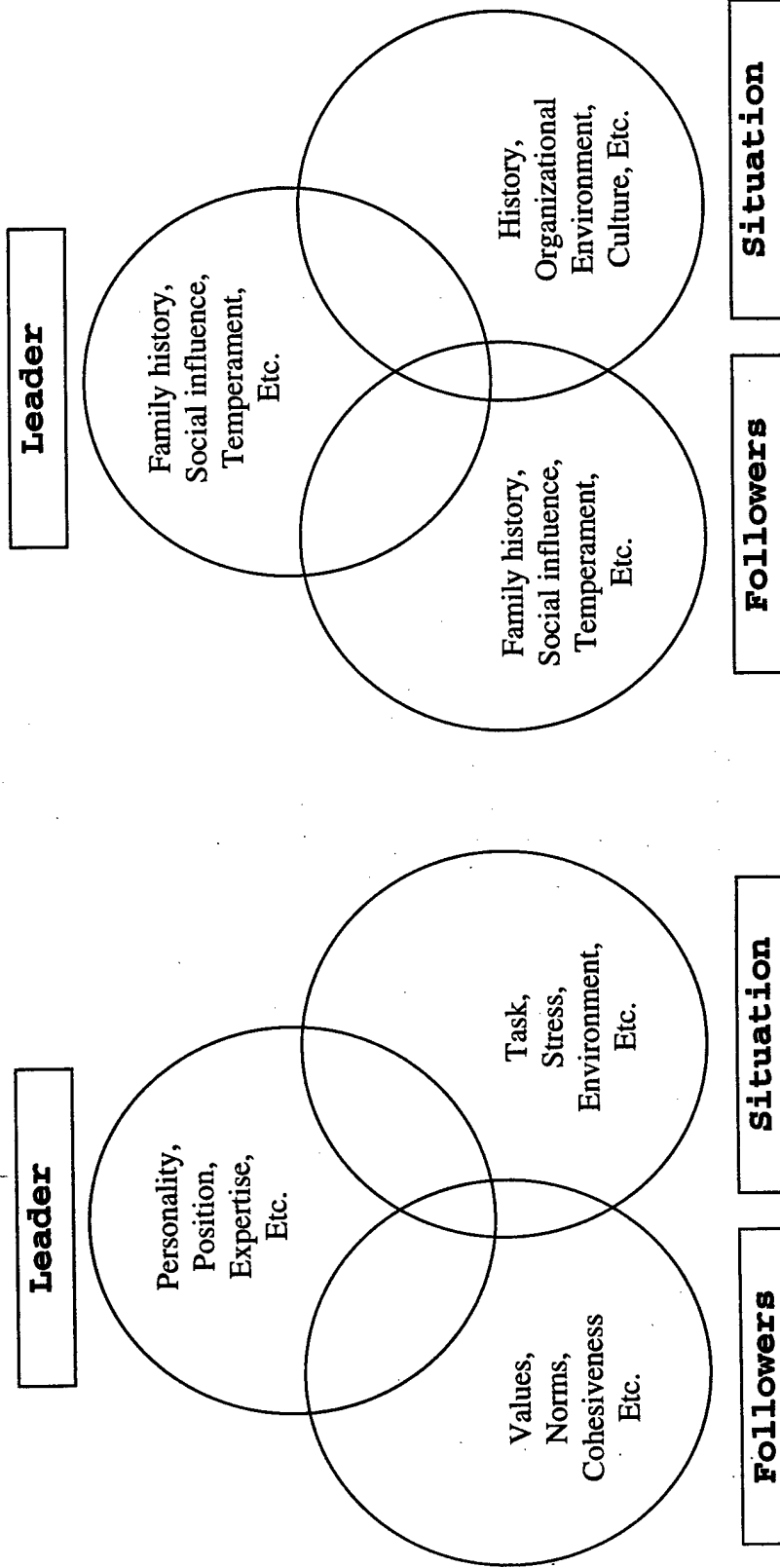
processes.

Leader

Family history,
Social influence,
Temperament,
Etc.

History,
Organizational
Environment,
Culture, Etc.

Family history,
Social influence,
Temperament,
Etc.

Situation

Followers

Figure B: Developmental influences which help explain how the here and now interaction came into existence.

Leader

Personality,
Position,
Expertise,
Etc.

Task,
Stress,
Environment,
Etc.

Values,
Norms,
Cohesiveness
Etc.

Situation

Followers

Figure A: Here and now influences on the leadership interaction. (From Hughes, Ginnett, & Curphy, 1996)

REPORT DOCUMENTATION PAGE

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1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE 28.Jul.99	3. REPORT TYPE AND DATES COVERED DISSERTATION

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